CLAIMS:

1. A security system for not enabling, enabling or disabling electrical devices for deterring theft, or preventing unauthorised use, of such devices including a plurality of electrical devices which are operationally linked via a bi-directional communication medium,

each electrical device including a programmable means for controlling operation of the electrical device,

each programmable means having a signal transmitting and receiving means associated therewith for transmitting and receiving control signals over the communication medium,

wherein the programmable means of one of the electrical devices is programmed as a controller for the other electrical devices.

2. A security system as claimed in claim 1 wherein the electrical device which includes the programmable means that provides the controller is an electrical appliance which includes a data entry facility for its programmable means, and wherein its programmable means is programmed both to operate the electrical appliance as such and to provide the controller functions for the security system.

3. A security system as claimed in claim 1 or 2 wherein the controller programmable means and the programmable means of the other electrical device or devices are programmed for a request-on control signal to be sent from an electrical device to the controller upon restoration of power to that electrical device following a power interruption thereto, and for the controller to return a turn-on control signal only if power to the controller has remained uninterrupted, whereby that electrical device is enabled only if the controller has remained enabled.

4. A security system as claimed in claim 3, wherein if an electrical device to which power is restored sends a request-on control signal to the controller and the controller does not recognise the requesting device, then the controller sends a turn-off control signal to all electrical devices on the system, whereby

all the electrical devices of the system are disabled in the presence of one unauthorised electrical device.

5. A security system as claimed in claim 4 wherein all the electrical devices remain inoperable until an appropriate security code for that unauthorised device is provided through the controller or the unauthorised device is removed from the system and a local security code for the system is provided to the controller.

6. A security system as claimed in claim 1 or 2 wherein the controller programmable means and the programmable means of the other electrical device or devices are programmed for a roll-call control signal to be sent from the controller to the other electrical devices, and for the other electrical devices to respectively and in sequence return a 'present' control signal to the controller in response to receipt of the roll-call control signal.

7. A security system as claimed in claim 6 wherein if a 'present' control signal is not returned by any electrical device, or is returned out of sequence, the controller will detect that a system change has occurred and commence a security check.

8. A security system as claimed in claim 1 or 2 wherein the controller programmable means and the programmable means of the other electrical device or devices are programmed for polling control signals to be sent from the controller to the other electrical devices upon restoration of power to the controller following a power interruption thereto, and for the other electrical devices to return request-on control signals to the controller in response to receipt of their respective polling control signals, and for the controller to then send turn-on control signals to the other electrical devices only if none of the other electrical devices are missing.

9. A security system as claimed in claim 8 wherein the controller programmable means and the programmable means of the other electrical

device or devices are programmed for the polling control signals to be repeatedly sent from the controller to the other electrical devices.

10. A security system as claimed in claim 9 wherein polling control signals are repeatedly sent with random timing between each poll within a user defined maximum time window.

11. A security system as claimed in any one of claims 8 to 10 wherein if an initially present device is missing, the controller sends turn-off control signals to all the electrical devices on the system whereby all the electrical devices of the system are disabled in the presence of one unauthorised electrical device or in the absence of a device that should be on the system.

12. A security system as claimed in any one of claims 1 to 11 wherein the controller programmable means is programmed to send turn-off control signals to all the electrical devices after a predetermined period unless a security code is entered into the controller prior to the end of the predetermined period.

13. A security system for not enabling, enabling or disabling an electrical device for deterring theft, or preventing unauthorised use, of that device, wherein the electrical device includes a programmable means for controlling operation of the electrical device as such, and a data input facility associated with the programmable means, and wherein that programmable means is also programmed as a security controller for the electrical device.

14. A security system as claimed in claim 13 wherein the programmable means is programmed for a turn-off control signal to be generated after a predetermined period unless a security code is entered into the controller prior to the end of the predetermined period.

15. A security system as claimed in any one of claims 1 to 14 wherein the controller programmable means is programmed to randomly, within a user defined maximum time window, send a stay-on control signal to at least one of

the electrical devices, and for that electrical device to be programmed to turn-off if the stay-on signal is not received.

16. A security system as claimed in claim 15 wherein the stay-on control signal is randomly timed within a user defined maximum time window.

17. A security system as claimed in any one of claims 1 to 16 wherein the programming is such that whenever the operational status of an electrical device of the system is changed (for example an appliance is switched from a "standby" mode to "on") that change is communicated to the controller whereby the controller monitors not only the presence of electrical devices, but also their current operational statuses.

18. A security system as claimed in any one of claims 1 to 17 wherein the security system is based on a mains power supply system, whereby all necessary power for both the normal operation of an electrical device and for its operation in the security system is supplied from the mains, and whereby the mains power supply system is used as the bi-directional communication medium.

19. A security system as claimed in any one of claims 1 to 17 wherein the security system involves electrical devices that include their own dedicated power supplies (for example, from a battery or batteries incorporated in each device), and a wireless communication medium (for example, radio or microwaves) operationally links the electrical devices to the system.

20. A security system as claimed in any one of claims 1 to 19 wherein the security system is interfaced with a general alarm system, and is capable of transmitting alarm or other signals to the general alarm system, and receiving control signals from the general alarm system.

21. A security system as claimed in any one of claims 1 to 19 wherein the controller for the security system is a controller associated with a general alarm system, and the controller includes programmable means programmed both to

operate the general alarm system and to provide the controller functions for the security system.

22. A security system as claimed in any of claims 1 to 21 wherein the system is programmed to allow any of the electrical devices, other than the controller, to operate as 'transitory' devices wherein they may be removed from, and returned to, the security system without creating a security breach or system abnormality, and wherein said 'transitory' devices are programmable to also operate in other compatible security systems.

23. A security system as claimed in any of claims 1 to 22 wherein the system is programmed to allow compatible electrical devices that are not part of the system, to operate as 'guest' devices on the system for a defined period of time, without creating a security breach or system abnormality.

24. A security system as claimed in any of claims 1 to 23 wherein any of the electrical devices, other than the controller, is programmable via the controller to operate for a defined period of time in an environment where there is either no security system, or there is a security system in which the device is not programmed as either a 'transitory' device or a 'guest' device.

25. A security system as claimed in any one of claims 1 to 24 wherein the system is programmed for the controller to program the operation of one or more of the other electrical devices of the system.

26. A computer program for a security system, the computer program providing for operation of the security system as claimed in any one of claims 1 to 25.